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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,340

06/09/2006

Toshifumi Yokoyama

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EXAMINER

PHAN, JAMES

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/582,340	<b>Applicant(s)</b> YOKOYAMA ET AL.	
	<b>Examiner</b> James Phan	<b>Art Unit</b> 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-21 is/are pending in the application.
- 4a) Of the above claim(s) 9-17, 20 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-8 and 18-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/08, 1/08, 7/07 and 8/06</u> .                               | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Election/Restrictions***

Applicant's election with traverse of Group I including claims 1, 3-8 and 18-19 in the reply filed on 6/2/08 is acknowledged. The traversal is on the ground(s) that the search and examination of the entire application could be made without serious burden. This is not found persuasive because each of the Groups does not contain a common special technical feature; for examples, Group I contains a light path forming unit that changes scanning direction and inverts the video signal which is not contained in Groups II and III; Group II contains a high speed deflector which is not contained in Group I and III; and Group III contains a free-form surface mirror which is not contained in Groups I and II. Each of the special technical features requires a separate search; thus, a serious burden would impose on the examiner if all claims were searched and examined together.

The requirement is still deemed proper and is therefore made FINAL.

***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 2/11/08, 1/22/08, 7/5/07 and 8/1/06 have been considered by the examiner.

***Claim Rejections - 35 USC § 112***

Claim 1 and 3-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite in that it is not clear how “said optical path formation part inverting the video signal” (claim 1, last paragraph); Is the reflected coherent light the video signal? Claims 3-8 are also rejected in that they are dependent on an indefinite claim and thus inherit the deficiency discussed above.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, as understood, 3-8 are 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan document 63-267909.

In regard to claim 1, the Japan document 63-267909 discloses a light scanning system for scanning with a coherent light (L1, Figs. 2-3) on a screen (S). The light scanning system comprises a polygon mirror (M1) for reflecting the coherent light so that scanning on the screen is carried out by its rotation; and an optical path formation part (multi-surface adjusting mirrors R1-R5 and K1-K5) for forming an optical path of the coherent light to reach the screen so that plural scanings are carried out on the screen by the coherent light that is reflected at one reflection plane of the polygon mirror (see Figs. 2-3); and said optical path formation part changing a scanning direction due to the coherent light, which direction is determined in accordance with a rotation direction of

the polygon mirror, and inverting the video signal at the changing. Note that the light image is inverted when it reflected by the optical path formation part.

In regard to claims 3-7, see reflection mirrors R1-R5 and K1-K5, their arrangement and functions illustrated in Figs. 2.

In regard to claim 8, the multi-surface adjusting mirrors R1-R5 and K1-K5 are inherently disposed rotatably about an axis that is perpendicular to the scanning direction of the coherent light because it is a necessary for adjusting the orientation of the mirrors so as to improve the displayed images.

In regard to method claims 18-19, all the method steps are inherently disclosed because the light scanning system for scanning with a coherent light (L1, Figs. 2-3) on a screen (S) discussed in the rejection of claim 1 has sufficient structure for carrying out the claimed methods.

Claims 1, as understood, 3-4 are 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Iwai et al.

In regard to claim 1, Iwai et al discloses a light scanning system for scanning with a coherent light on a screen (9, Fig. 1). The light scanning system comprises a polygon mirror (10) for reflecting the coherent light so that scanning on the screen is carried out by its rotation; and an optical path formation part (galvano mirror 7) for forming an optical path of the coherent light to reach the screen so that plural scanings are carried out on the screen by the coherent light that is reflected at one reflection plane of the polygon mirror; and said optical path formation part changing a scanning direction due to the coherent light, which direction is determined in accordance with a rotation

direction of the polygon mirror, and inverting the video signal at the changing. Note that the light image is inverted when it reflected by the optical path formation part.

In regard to claims 3-4, see reflection mirror galvano mirror 7, its arrangement and functions illustrated in Fig. 1.

In regard to method claims 18-19, all the method steps are inherently disclosed because the light scanning system for scanning with a coherent light on a screen (9) discussed in the rejection of claim 1 has sufficient structure for carrying out the claimed methods.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Phan whose telephone number is (571) 272-2317. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on (571) 272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James Phan/  
James Phan  
Primary Examiner  
Art Unit 2872

JP  
Aug. 2008